

**City of Dayton  
Source Water Protection Program  
Commission Work Session  
11-12-14**

**A Smart Plan that Protects and Sustains Water  
Quality with Business Growth Flexibility**

# A Smart Plan that Protects and Sustains Water Quality with Business Growth Flexibility

## The Proposed Plan Strengthens the Level of Protection for Dayton's Source Water Protection Program (SWPP):

1. Expand Prohibited Use Categories
2. Expand Early Warning Network
  - a) Increase Number of wells (300 → 450)
  - b) Increase frequency of testing
  - c) Add real time monitoring
3. Increase RPBD Incentive Program
4. Expand Education and Awareness Program
5. Increase/Diversify Program Expertise
6. Broaden/Expand Risk Management Activities to 5 Yr. SWPA

# A Smart Plan that Protects and Sustains Water Quality with Business Growth Flexibility

Dayton's Source Water Protection Boundary is one of the most important tools in the Program; however, a comprehensive program necessarily focuses on the "Big Picture".

- A Source Water Protection Program that is truly protective and effective relies on a **combination of tools**:
  - a) Source Water Protection Area Boundary (1 and 5 Year Areas)
  - b) Risk Management
    - Monitoring Wells, Site Inspections, Chemical Inventory Limitations, etc.
  - c) Emergency Preparedness
  - d) Education/Awareness
  - e) Incentive Programs (Risk Point Buy-Down)
- Expand Risk Management Strategies to a Broader Area

# Revised SWPP Proposal

## Policy Issue #1: SWPA Boundary

### 11-12-14 Revised Proposal

Source Water Protection Area (SWPA) will consist of two zoning districts: WO and WP.

Three additional factors used in the modeling of the geographically regulated area:

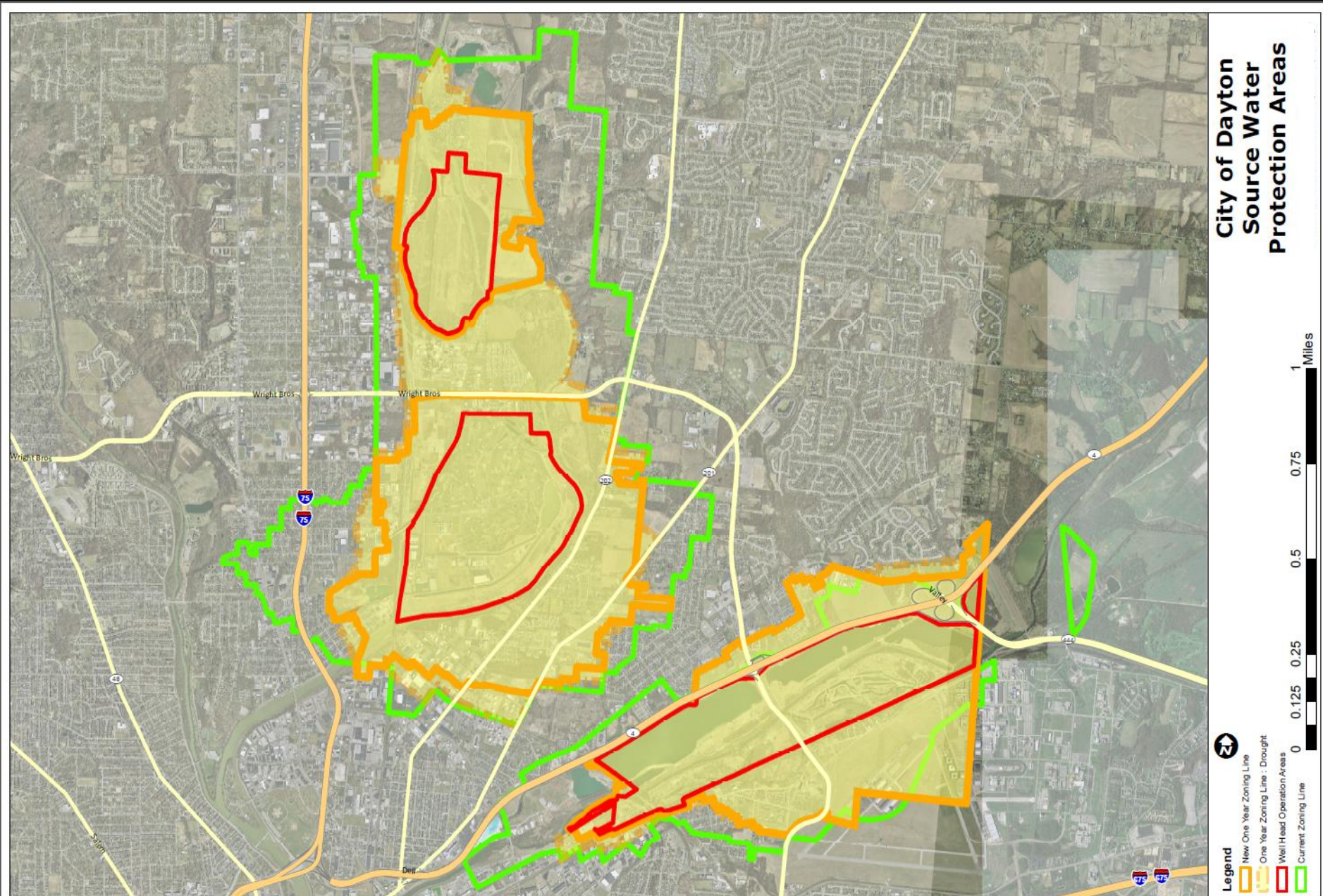
1. Modeled drought assumption.
2. Included geologically highly sensitive/vulnerable areas.
  - **Combined Rip Rap and Miami Well Field.**
3. Incorporated emergency preparedness/redundancy factors.
4. Includes OEPA 5 Year SWPA.

### 5-14-14 Original Proposal

Source Water Protection Area (SWPA) will consist of two zoning districts: Well Head Operation (WO) and Water Protection (WP).



# Proposed Regulated SWPA



# Revised SWPP Proposal

## Policy Issue #1: SWPA Sites/Pounds

Current		
Jurisdiction	# Sites	Existing lbs.
City of Dayton	222	124.5 M
City of Huber Heights	19	0.098 M
City of Riverside	69	1.05 M
City of Vandalia	9	0.306 M
Harrison Township	122	3.25 M
<b>Total</b>	<b>441</b>	<b>129 M</b>

Note:

- 25% Reduction in SWPA
- 41% Reduction in Sites
- 5% Reduction in Pounds

Proposed					Nov 12, 2014	
Jurisdiction	WP		WO		WP + WO Total	
	# Sites	New lbs.	# Sites	New lbs.	# Sites	New lbs.
City of Dayton	139	119.61 M	19	0.256 M	158	119.87 M
City of Huber Heights	7	0.018 M	N/A	N/A	7	0.018 M
City of Riverside	50	0.790 M	N/A	N/A	50	0.790 M
City of Vandalia	1	< 160	N/A	N/A	1	< 160
Harrison Township	51	2.4 M	N/A	N/A	51	2.4 M
<b>Total</b>	<b>248</b>	<b>122.8 M</b>	<b>19</b>	<b>0.256 M</b>	<b>267</b>	<b>123.1 M</b>

May 14, 2014	
WP + WO Total	
# Sites	New lbs.
128	3.2 M
6	0.0175 M
42	0.0780 M
2	0.190 M
19	1.72 M
<b>197</b>	<b>5.8 M</b>

# Revised SWPP Proposal

## Policy Issue #2: Prohibited Uses

### 11-12-14 Revised Proposal

Includes the 16 additional categories proposed in the original proposal, plus the two additional prohibitions below:

1. Hazardous Liquid Pipeline Facility.
2. Any Prohibited Uses as Identified in State and Federal Law.

### 05-14-14 Original Proposal

To Protect the SWPA from land uses that increase the risk of groundwater contamination, the list is expanded for prohibited uses in the WO and WP.

- The SWPP existing list of 8 categories is to be increased by **16 additional categories**



# Revised SWPP Proposal

## Policy Issue #3: Definition of Regulated Substance

### 11-12-14 Revised Proposal

Expand Regulated Substance Reference List to include:

1. Chemicals on the Contaminants Candidate List (CCL) and,
2. Unregulated Contaminant Monitoring Program (UCM).

### 5-14-14 Original Proposal

Replace current definition of Regulated Substances with a more detailed definition which incorporates federal regulations and the Globally Harmonized System of Classification.



# **Revised SWPP Proposal**

## **Policy Issue #4: Chemical Exemption Process**

### **11-12-14 Revised Proposal**

No Change from Previous Recommendation.

### **5-14-14 Original Proposal**

Environmental Advisory Board shall have jurisdiction over process to exempt chemicals from the City's Source Water Protection Program Ordinance.

# Revised SWPP Proposal

## Policy Issue #5: Appeals Board

### 11-12-14 Revised Proposal

Environmental Advisory Board serves as Appeals Board.

- Include Small Business representation

### 5-14-14 Original Proposal

The Environmental Advisory Board will serve as the Appeals Board for decisions of the Director or Water per R.C.G.O. Chapter 53.

# Revised SWPP Proposal

## Policy Issue #6: Exchange Program

### 11-12-14 Revised Proposal

Market Based Transfer Program is Eliminated.

### 5-14-14 Original Proposal

Market Based Transfer Program Established for Regulated Substance Inventory.

1. Transfer to TMDI allowed within the WP and from the WO to the WP subject to certain ratio, requirements, and procedures.
2. No transfer of TMDI allowed within the WO and from the WP to the WO.

# Revised SWPP Proposal

## Policy Issue #7: Variances

### 11-12-14 Revised Proposal

Variance Process to Increase Total Maximum Daily Inventory (TMDI) Limits Allowed.

1. **Variance process eliminated in Well Head Operating (WO).**
2. Variance allowed in Water Protection (WP) Area.
3. Specific criteria (i.e. application) developed to guide request to increase pounds.
4. Minor variance established.
  - a) Zoning Administrator can approve a minor variance of 10,000 pounds or less or defer to BZA
  - b) BZA can hear all requests for increased TMDI
5. Fire and Water review and make recommendations to Zoning Administrator.

### 5-14-14 Original Proposal

Variances to Increase Total Maximum Daily Inventory (TMDI) are **prohibited** in the WO and WP.

# Revised SWPP Proposal

## Policy Issue #8: Risk Point Buy Down Program

### 11-12-14 Revised Proposal

Risk Point Buy Down Process Enhanced.

1. Increase Incentive for businesses to sell pounds.
2. Currently \$1.79/lb.  
Recommend up to \$4.00/lb.
3. Current Surcharge \$0.60/1000 CF.
4. CM can increase up to \$1.00/1000 CF.

### 5-14-14 Original Proposal

Suspension of Regulated Substance Risk Point Buy-Down Program for three years.



# Revised SWPP Proposal

## Policy Issue #9: SWPA Conservation Easements

### 11-12-14 Revised Proposal

No Change from Previous Recommendation.

### 5-14-14 Original Proposal

Conservation Easements that were purchased by the Source Water Protection Fund through the Risk Point Buy Down Program prohibited from Increasing TMDI.

# Revised SWPP Proposal

## Policy Issue #10: Penalties/Fines

### 11-12-14 Revised Proposal

#### Daily/Maximum Fines

Increased:

- \$1,000/day up to \$50,000 maximum penalty

### 5-14-14 Original Proposal

Fines Increased:

- \$500/day up to \$20,000 maximum penalty

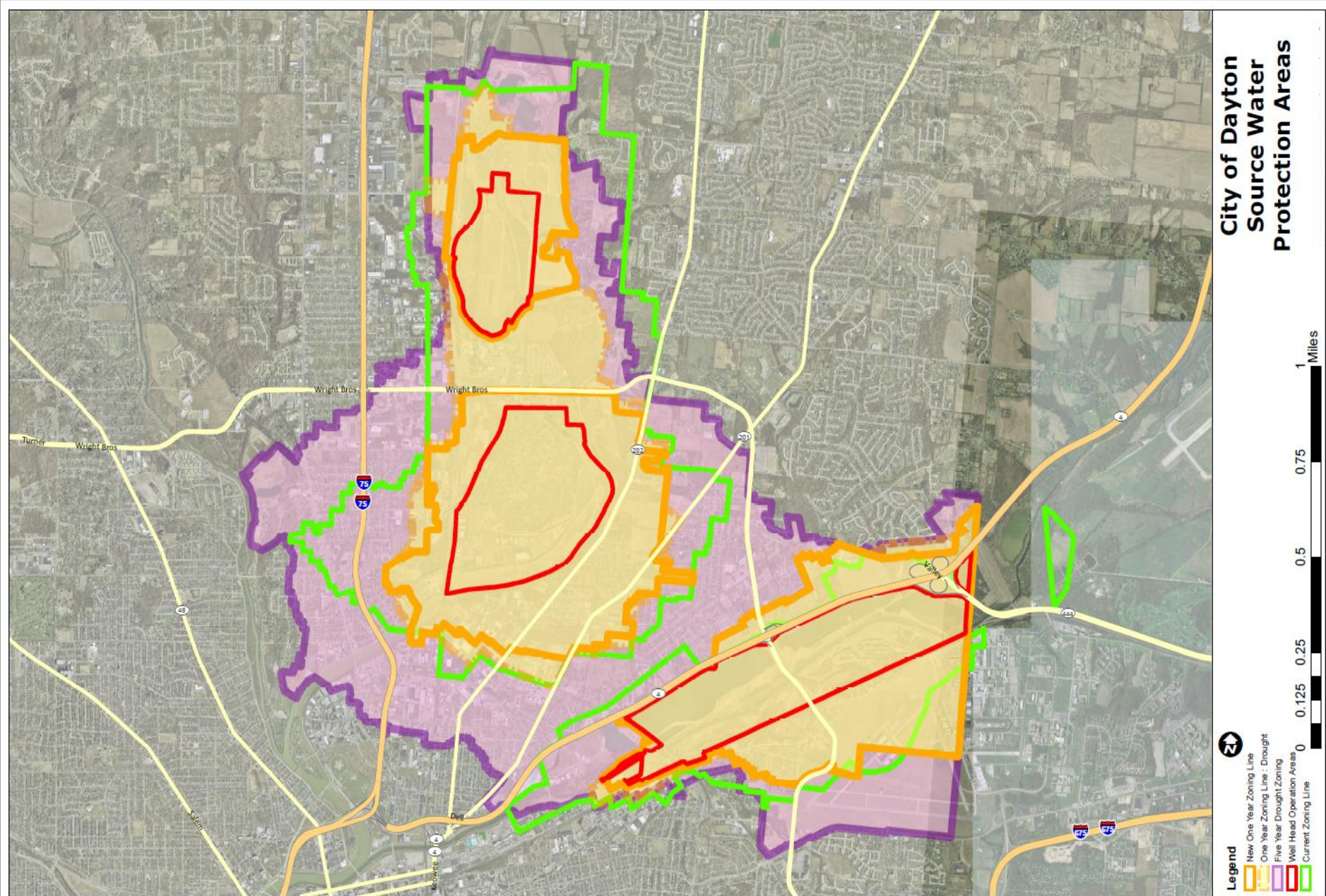
# **ENHANCED PROTECTION STRATEGIES 5 YEAR SOURCE WATER PROTECTION AREA**

**Source Water Protection enhancements that further strengthens Dayton's Proposal.**

- 1. Develop/Implement a Focused Risk Management Program in 5 year SWPA.**
  - a. Hire Risk Management Expert
  - b. Seek consultative services in industrial and manufacturing fields
  - c. Identify high risk land users for targeted monitoring/best management practices
  - d. Expand educational and awareness activities
- 2. Expanded Use of Well-Field Protection Fund.**
  - a. Fund targeted risk management activities in 5 year SWPA
- 3. Expand Early Warning Network.**
  - a. Increase level/frequency of monitoring
  - b. Currently 300 monitoring wells; eventually about 450
  - c. Invest in remote real-time monitoring technology
  - d. Expand network into the 5 year SWPA



# Purple Area: Non-Regulated 5 Year SWPA



# A Smart Plan that Protects and Sustains Water Quality with Business Growth Flexibility

***Comprehensive...Protective...Sustainable***

## **Dayton's Source Water Protection Program:**

- A Strong Model for Source Water Protection
- A Highly Effective Use of Multiple Protective Strategies:
  - a) Source Water Protection Area Boundary
  - b) Risk Management
    - Monitoring Wells, Site Inspections, Chemical Inventory Limitation
  - c) Emergency Preparedness
  - d) Education/Awareness
  - e) Incentive Programs (Grants/Loans)
- A Broadened and Enhanced Perspective on Risk Management



# **A Smart Plan that Protects and Sustains Water Quality with Business Growth Flexibility**

## **NEXT STEPS:**

- **Stakeholder Meetings**
- **Plan Board Process**
- **City Commission Public Hearing  
Process**